

## 4. Perceptions and Comments by Agricultural Businesses and Farmers in the Bank

In this section, we move from the quantitative evaluation of the impact of the Bank to a more qualitative investigation of the perceptions of the businesses and farmers involved. We first report findings about the perceptions by agricultural firms on what caused their gross revenues to change between 1990 and 1991. We investigate the perceived importance of the Bank relative to other factors and look for differences in response by firm size, type of business, and location of sales or purchases. This analysis will provide added support to our contention that the Bank did have a negative impact on agricultural businesses.

We then report what farmers and businesses perceived to be the positive and negative impacts of the Bank on local communities and what suggestions they had on how future Banks might be managed differently to increase the positive effects and lessen the negative effects.

### Reasons Perceived by Businesses for the Change in Gross Revenue

In the business survey, we listed a number of factors and asked participants whether each caused gross revenues to rise, fall, or remain the same between 1990 and 1991. Table 4.1 tabulates the responses.

Drought-induced water shortages, the Water Bank, the recession, and the Christmas 1990 freeze were predominantly perceived to have had a negative impact on gross revenues. Fifty-eight percent of the businesses thought drought-induced water shortages (other than the Water Bank) had a negative impact, while 52 percent thought the Water Bank had a negative impact.<sup>1</sup> Almost one-quarter of the businesses surveyed answered that the Bank had no impact, and another quarter did not answer at all. We think it likely that many who failed to respond to a particular factor did not think that factor particularly important.<sup>2</sup>

<sup>1</sup>In the UC survey of 108 agricultural businesses in Yolo and Solano counties, firms were asked about the effect of the Water Bank on gross annual sales. Thirty-one percent reported the Bank caused a decrease. Coppock and Kreith (1993), p. 34.

<sup>2</sup>This is supported by the lower response rate for factors perceived to have no impact.

**Table 4.1**  
**Opinions of Firms Surveyed on Causes of Change in Gross Revenues**  
**(percentage of 65 firms surveyed)**

| Factor  | Impact on Gross Revenues |      |          |           |
|---|--------------------------|------|----------|-----------|
|   | Negative                 | None | Positive | No Answer |
| Factors generally reported as having negative impacts |                          |      |          |           |
| Drought-induced water shortages <sup>a</sup>          | 58                       | 12   | 5        | 25        |
| Water Bank  | 52                       | 22   | 2        | 25        |
| Recession   | 32                       | 34   | 0        | 34        |
| Christmas 1990 freeze                                 | 22                       | 39   | 5        | 35        |
| Factors generally reported as having positive impacts |                          |      |          |           |
| Change in price of firm's product                     | 17                       | 25   | 30       | 29        |
| Change in price of firm's inputs                      | 6                        | 29   | 23       | 42        |
| Factors generally reported as having no impact        |                          |      |          |           |
| Labor problems  | 5                        | 50   | 0        | 46        |
| Changes in competitive environment                    | 6                        | 42   | 12       | 40        |
| Changes in crop programs                              | 14                       | 39   | 3        | 45        |
| Consolidation of farm operations                      | 10                       | 45   | 0        | 45        |

<sup>a</sup>Other than the Water Bank.

This suggests that substantially more than 22 percent of the 65 business in the sample thought the Bank had no or very little impact on gross revenues.

Table 4.2 breaks down firm perceptions of the impact of the Bank by firm size, type of business, and location of sales and purchases. As expected, firms with the higher percentages of sales or purchases in the five counties most impacted by the Bank were most likely to think that the Bank had a negative impact on their gross revenues. Only 29 percent of firms that did 35 percent or less of their business in the counties most impacted thought the Bank had a negative impact, compared with 78 percent of those that did 75 percent or more of their business in the most impacted counties.

Returning to Table 4.1, representatives of the firms surveyed tended to think that price changes caused gross revenues to increase between 1990 and 1991. There are also a number of factors that a large percentage of the respondents either thought had no impact on gross revenues or did not answer questions on: labor problems, change in competitive environment (e.g., entry or exit of competitors into the market), changes in federal crop programs, and consolidation of farm operations.

**Table 4.2**  
**Opinions of Firms Surveyed on Impact of Drought Water Bank on Change in**  
**Gross Revenues Between 1990 and 1991 by Firm Characteristic**  
**(percent)**

| Factor  | Number<br>of Firms | Impact on Gross Revenues |           |          |              |
|---|--------------------|--------------------------|-----------|----------|--------------|
|   |                    | Negative                 | None      | Positive | No<br>Answer |
| 1990 gross revenues (\$million)   |                    |                          |           |          |              |
| Less than 1   | 17                 | 36                       | 18        | 6        | 41           |
| 1 to 10   | 26                 | 69                       | 12        | 0        | 19           |
| Greater than 10   | 22                 | 46                       | 36        | 0        | 18           |
| Type of business  |                    |                          |           |          |              |
| Applicator  | 9                  | 44                       | 11        | 0        | 44           |
| Fuel  | 8                  | 12                       | 63        | 0        | 25           |
| Equipment   | 11                 | 82                       | 18        | 0        | 0            |
| Seed, chemicals   | 16                 | 56                       | 6         | 0        | 38           |
| Handles farm output   | 21                 | 53                       | 24        | 5        | 19           |
| Percentage of 1990<br>sales/purchases in 6 counties<br>most impacted <sup>a</sup> |                    |                          |           |          |              |
| Less than 35  | 17                 | 29                       | 24        | 0        | 47           |
| 35 to 74  | 14                 | 50                       | 29        | 0        | 21           |
| 75 or greater   | 27                 | 78                       | 15        | 0        | 7            |
| <b>Total</b>  | <b>65</b>          | <b>52</b>                | <b>22</b> | <b>2</b> | <b>25</b>    |

<sup>a</sup>Butte, Contra Costa, Sacramento, San Joaquin, Yolo, and Yuba.

These results suggest that a number of factors caused gross revenues to change between 1990 and 1991. Most businesses thought that the Water Bank had a negative impact on their operations, but a sizable percentage thought it had no impact—especially among firms that did a relatively small amount of business in the counties most impacted.

## Perceived Positive and Negative Impacts of the Bank

Both the farmer and business surveys ended with several open-ended questions about the Bank. One question we asked respondents was what they perceived to be the positive and negative impacts of the Bank in the local community.

Table 4.3 summarizes by subject the percentage of farmer and business respondents indicating positive effects of the Bank. Overall, 29 percent of the farmers and 11 percent of the businesses participating in the surveys made one or more positive comments about the Bank.<sup>3</sup> Sixteen percent of the farmers and 9 percent of the businesspersons thought the Bank was good for farmers. They

<sup>3</sup>Respondents were allowed to make more than one comment on each open-ended survey question.

**Table 4.3**  
**Positive Comments on the Drought Water Bank**

| Nature of Comments                 | Percent Responding  |                        |
|------------------------------------|---------------------|------------------------|
|                                    | Farmers<br>(N = 99) | Businesses<br>(N = 65) |
| Good for farmers                   | 16                  | 9                      |
| More farm investment               | 16                  | 0                      |
| Good for others                    | 7                   | 1                      |
| Respondents with positive comments | 29                  | 11                     |

indicated that Bank income helped farmers and landlords pay off debt and become financially stable. Some of the extra Bank money was spent on farm investments. Sixteen percent of the farmers specifically mentioned their investments in farm improvements and equipment as a positive effect of the Bank. One farmer indicated that his labor and farm inputs remained the same due to increased farm improvements despite reduced farm production because of the Bank. A number of farmers said that they cleaned ditches, improved irrigation pipelines, bought tractors, and overhauled their groundwater pumps. One farmer put in two new wells. Lastly, a few respondents indicated that the Bank was good for others in the community. Groups mentioned were local residents, water agencies, and state workers. Other benefits cited included the idling of land, more production of non-Bank crops, and more efficient farming.

A summary of the negative comments on the Bank is included in Table 4.4. Both groups of respondents, but particularly businesses, made more negative than positive comments about the Bank. Overall, 46 percent of farmers and 58 percent of businesses made some type of negative comment about the Bank. However, a

**Table 4.4**  
**Negative Comments on the Drought Water Bank**

| Nature of Comments                 | Percent Responding  |                        |
|------------------------------------|---------------------|------------------------|
|                                    | Farmers<br>(N = 99) | Businesses<br>(N = 65) |
| Little or no negative effects      | 3                   | 15                     |
| Hurt local business                | 24                  | 33                     |
| Hurt local community/divisive      | 19                  | 30                     |
| Poor management of Bank            | 18                  | 3                      |
| Increased groundwater overdraft    | 5                   | 3                      |
| Threatened water rights            | 3                   | 3                      |
| Hurt environment (wildlife/fowl)   | 3                   | 0                      |
| Respondents with negative comments | 46                  | 58                     |

few farmers and 15 percent of the business respondents said that there were few or no perceived negative effects in their communities from the Bank.

About one quarter of the farmers and a third of the business respondents indicated that the Bank had negative impacts on local businesses. A number specifically indicated that seed suppliers, pesticide and fertilizer companies, fuel suppliers, applicators, harvesters, truckers, grain brokers, and service contractors were hurt by the Bank. Several respondents mentioned the multiplier effect of reduced farm expenditures. One respondent mentioned that the community-wide impact of the Bank, i.e., less acreage cultivated, less fertilizer and seed sold, and less hauling and harvesting, trickles down to the local grocery store. Another respondent cited less repair work and fewer diesel sales, and a third respondent said there was less demand for repair parts. Many linked the business downturn to fewer acres in production (no-irrigation contracts). One respondent indicated that a few suppliers, specifically seed suppliers and haulers, were able to raise prices to counteract the effect of the Bank.

A number of business respondents indicated that their sales were down, one by as much as 25 percent. Another indicated that they maintained their operations by reducing profit. Both farmers and businesses mentioned that some permanent help was let go and that some temporary workers had no jobs. Concern was expressed not only about the lost salaries but also about the lost benefits for employees. Lastly, a number of respondents mentioned that the Bank broadly hurt the local economy.

Almost a fifth of the farmers and a third of the business respondents mentioned the Bank's negative impact on the local community, particularly its divisiveness. They indicated that some farmers (upland) were jealous of other farmers (lowland) because the former thought the latter got a better deal from the Bank. Other farmers were angry with their landlords or water districts for selling the water they normally use without adequate compensation. And businesses were angry with some of their farmer customers for reducing purchases.

A third major category of negative comments on the Bank concerned DWR's management of the Bank. Tenant farmers complained that some of their landlords did not want to share any Bank money with them. Two farmers did not even know that their water had been sold until contacted by the survey. A few farmers complained about perceived state threats to take the water if they did not participate in the Bank. Several other farmers complained about abuses of the Bank by their neighbors. And some farmers complained that they needlessly preirrigated and spent money on soil preparation on acreage put in the Bank because of the timing of the Bank.

Groundwater overdraft was another concern of respondents. Both farmers and businesses specifically mentioned the negative effect of increased groundwater pumping due to the Bank and the possibility of long-term overdraft.

A few farmers and business respondents expressed concern about the impact of the Bank on their water rights. The farmers were concerned about the Water Resources Control Board taking away the right to the water they sold. One farmer said that the water was not the farmers' to sell. Two business respondents also complained that the water was not the farmers' to sell, that it belonged to the taxpayers.

Several farmers said that the Bank had a negative effect on migratory waterfowl because of the loss of habitat (nesting and feeding areas) due to fallowing and the decrease in flooded rice fields.

Lastly, one farmer said that he would not participate in a bank again, while 27 percent had no comments. Nine percent of the business respondents did not know either about the Bank or any positive or negative effects. Another 15 percent declined to comment. One business person could only say that he saw no positive effects of the Bank.

## **Suggestions on How DWR Could Improve the Bank**

When we asked our farmer and business respondents what the Department of Water Resources could do to improve the way the Bank operates and to reduce its negative and increase its positive effects, we got an extensive list of suggestions, some of them contradictory. However, 30 percent of the farmers and 28 percent of the businesses had no suggestions for Bank improvement and thirteen percent of the farmers thought the DWR did a good job (a few said DWR did a great or outstanding job), although no businesses made this comment.

Of comments directed at Bank operations, the most common suggestion by both farmers and businesses was to start the Bank earlier (see Table 4.5). Starting earlier allows farmers and businesses to plan better for any changes in their operations.<sup>4</sup>

A number of farmers wanted DWR to expedite, simplify, and clarify future banks. They thought that negotiations were time-consuming and that contracting took too long. They indicated that deals were difficult to understand

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<sup>4</sup>Unfortunately, a dry fall and winter can be followed by a very wet spring. Thus, starting much earlier may be difficult, unless buyers are willing to purchase option contracts long before they know whether they will need the water.

**Table 4.5**  
**Suggestions for How DWR Could Improve the Bank**

| Suggestion Areas             | Percent Responded |                      |
|------------------------------|-------------------|----------------------|
|                              | Farmers<br>(N=99) | Businesses<br>(N=65) |
| Bank operations              |                   |                      |
| Start earlier                | 12                | 5                    |
| Simplify, clarify, expedite  | 9                 | 8                    |
| Plan/prepare                 | 5                 | 6                    |
| Ongoing program              | 2                 | 0                    |
| Bank management policies     |                   |                      |
| Crop selection               | 22                | 3                    |
| Deal directly with farmers   | 4                 | 6                    |
| Include/protect tenant       | 7                 | 0                    |
| Third-party representation   | 0                 | 12                   |
| Spread/limit sales           | 4                 | 18                   |
| Pricing                      | 2                 | 5                    |
| Environmental protection     | 7                 | 2                    |
| Groundwater contracts        | 8                 | 0                    |
| Protect water rights         | 0                 | 2                    |
| No water banks               | 3                 | 15                   |
| More water projects          | 5                 | 12                   |
| Respondents with suggestions | 70                | 72                   |

and that Bank rules were not clear. Businesses wanted the Bank to have more formal rules on participation by both sellers and buyers.

Both farmers and business respondents suggested that the DWR plan ahead and be better prepared for future Banks. One business thought DWR should manage water better (keep more water in reservoirs). Several suggested that the DWR needs a better understanding of the impacts of the Bank on the local economy and the environment. A few thought that DWR needs a better understanding of crop demands and water requirements.<sup>5</sup> Others wanted standard contracts and policies to expedite sales and ensure fairness. Several farmers went as far as to say that the DWR should have such a program every year.

We also received a large number of comments related to Bank management policies. Numerous farmers suggested that DWR change Bank crop-selection policies. Several farmers recommended that permanent crops, such as asparagus and alfalfa, should not be in future Banks. Other farmers suggested that no-

<sup>5</sup>DWR restricted the amount a farmer, landlord, or water district could sell to the Bank through no-irrigation contracts to DWR estimates of historical water consumption on the parcel of land to be put in the Bank. These estimates were based on past cropping patterns and estimates of these crops' water requirements.

irrigation or reduced-irrigation contracts for crops like wheat, safflower, and alfalfa that are already in the ground should be emphasized over fallowing contracts, because fewer third parties are impacted. In addition, one business participant did not think farmers should be rewarded for nonproduction (fallowing), while another thought that all land should be fallowed, as opposed to planted but not irrigated, to be fair to all participants.

Farmers and business respondents also suggested that the DWR deal directly with farmers and landlords rather than the water districts. Further, a number of tenant farmers wanted to be included in any future Bank negotiations and agreements.<sup>6</sup> One tenant mentioned that he was stuck with paying for a lease with no water. Another said that his landlord had bought back the water rights in case of a Bank in 1992.

One business respondent suggested that future Banks be managed by local water groups. In addition, many businesses thought that third parties should have input to Bank decisions and that the concerns and needs of business and other third parties should be considered. Several business respondents went as far as to suggest that third parties should be considered for financial offset.

A few farmers and a considerable number of businesses suggested that DWR spread or limit sales in different regions. A few went further and wanted to limit the amount a specific farmer could sell. Several suggested that 25 percent should be the maximum amount of water that a region or farmer should be allowed to sell.

A few farmers and business participants were concerned about DWR's price for water in the bank. One farmer felt it should be fixed for each crop. Another farmer thought the price might be too high, and a business respondent suggested that the price was too low. A few businesses recommended a more marketlike selection of water price.

Suggestions for environmental protection within future banks range from setting aside water for wildlife (and farming) before selling any water to ignoring the environment and the impact on fish of farmers' withdrawals. Waterfowl protection seemed to be the primary environmental concern among survey participants who expressed concern about the environment.

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<sup>6</sup>As mentioned earlier, DWR attempted to include both landlords and tenants in the negotiation process. As DWR staff gained experience in the Bank, these attempts were strengthened, but they did not apply to the black-box contracts with water agencies.



Several farmers expressed concern that the DWR protect the water rights of sellers.

Farmers gave a number of suggestions related to groundwater, ranging from emphasizing sales to limiting or prohibiting sales. Those who emphasized groundwater sales mentioned that they would limit third-party impacts, while those who recommended limiting or prohibiting groundwater sales appeared concerned about overdraft.

As might be expected from our survey analyses that showed that most farmers benefited from the Bank, only a few farmers but 20 percent of the business respondents suggested that there should not be a Drought Water Bank. Several farmers recommended that the Bank should be done only during emergencies, and a few business respondents did not like the water going to Southern California—to the Metropolitan Water District of Southern California.

Lastly, 5 percent of the farmers and 15 percent of the business respondents recommended that DWR build more water projects, such as dams and canals or desalting plants, instead of conducting Drought Water Banks.

The most noteworthy miscellaneous comment was by a farmer who was angry that DWR sent him notices to weed his fallowed field while his neighbor who had alfalfa in the Bank got five cuttings.

## **Additional Comments and Concerns About the Bank**

In the process of performing this study, we came across a few additional comments about the Bank outside of the survey that we feel should be included for completeness. These comments stem from our pretest of the survey, published articles, written and oral communications with DWR, and conversations with various stakeholders in the process.

In a December 4, 1991, letter to California's Governor Pete Wilson, Yolo County's Board of Supervisors requested that counties have an opportunity for responsible participation in water transfer. They further recommended that programs be established for data collection and analysis to better understand the legal aspects and economic and environmental impacts of transfers. In addition, the county of Yolo conducted a study to estimate revenues that may have been lost due to unemployment caused by Bank fallowing of farmland in 1991. That study was based on a rough estimate from the State Employment Development Department of the magnitude of unemployment that would be associated with fallowing of the amount of acreage in the 1991 Bank. On January 7, 1992, the Yolo County

Board of Supervisors sent a letter to DWR requesting compensation of \$129,305 for increased General Assistance, Aid to Families with Dependent Children, and unemployment assistance. DWR did not deny that the Bank may have had an adverse impact on the county. DWR suggested that Yolo County follow standard procedures for claims against the state and submit a claim to the State Board of Control, which it did. Yolo's claim is currently pending.

The California Action Network and California Association of Family Farmers expressed concern about the adverse social, economic, and environmental impacts caused by Water Bank activity and proposed a 40-percent impact fee on gross water sales. They recommended that the fee be split with 15 percent of gross revenue going for an environmental restoration and conservation fund, 5 percent for a social service fund, 4 percent to public services, 1 percent to private nonprofit services, and 20 percent to a community impact fund monitored by the county's Board of Supervisors.<sup>7</sup>

The California Action Network, in an August 11, 1992, letter addressed to public officials and interested parties recommended that "public officials insist that the potential negative impacts of water transfers upon rural communities and the environment be addressed." They also recommended that: "There must be authority within the area of origin to deny a proposed transfer if the effects are judged unacceptable." Further, "The costs of mitigating 'third party' effects should be internalized as a cost of the transfer." Lastly, they recommended that "The state should provide for public review of major water transfer proposals."

DWR received several unsolicited comments about the Bank. On April 23, 1992, a manager of a ranch in the Yolo bypass area who did not participate in the 1991 Bank visited DWR to express his concern that some individuals DWR was dealing with in the Bank were "crooks." He said that at least one person he knew of had leased land for \$65/acre and then put the land in the Bank and received large payments from DWR for not farming. On the other hand, one Bank participant sent DWR a letter dated February 11, 1992, saying that Water Bank dollars had allowed her to "make purchases and complete jobs that I had wanted to complete for years." She said she "bought fencing, employed additional help to build fence [sic], did land leveling, and designed and built tailway recovery systems to make my use of water more efficient." She indicated that she "has several more projects that need to be done" and hoped that she can sell water to DWR again.

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<sup>7</sup>California Action Network and California Association of Family Farmers (1992).

Lastly, a lobbyist for the California Fertilizer Association claimed that the Bank resulted in \$21 million in lost fertilizer and chemical sales in the regions selling water to the Bank.

## Summary

The concerns and comments about the 1991 Bank raised in our survey largely mirror what Howitt, Moore, and Smith (1992) found in their focus groups:

- There is need to protect local economies, communities, and resources from adverse impacts. Specifically of concern are
  - businesses
  - workers
  - government services
  - groundwater
  - the environment.
- To improve future banks, DWR needs to
  - provide clear guidelines and notice
  - start earlier, if possible
  - minimize local impacts
  - broaden participation.

The most noteworthy differences in our responses were the increased emphasis on including tenants (and farmers, for water agency contracts) in negotiations and a lesser emphasis on legislation to facilitate transfers.